

We claim:

1. A coated preparation comprising

5 at least one diformate of the general formula  
XH(COOH)<sub>2</sub>, where X is Na, K, Cs, NH<sub>4</sub>.

10 2. A preparation as claimed in claim 1, wherein potassium diformate is employed as

15 3. A preparation as claimed in either of the preceding claims, wherein the preparation  
comprises further ingredients and/or additives and/or carriers.

20 4. A preparation as claimed in any of the preceding claims, wherein the coating  
material employed is at least one compound selected from the group consisting of

a) polyalkylene glycols, especially polyethylene glycols with a number average  
molecular weight of about 400 to 15 000, such as, for example, 400 to 10 000;

b) polyalkylene oxide polymers or copolymers with a number molecular weight of  
about 4000 to 20 000, in particular block copolymers of polyoxyethylene and  
polyoxypropylene.

c) Substituted polystyrenes, maleic acid derivatives and styrene/maleic acid  
copolymers

d) polyvinylpyrrolidones with a number average molecular weight of about 7000 to  
1 000 000;

e) vinylpyrrolidone/vinyl acetate copolymers with a number average molecular  
weight of about 30 000 to 100 000

f) polyvinyl alcohol with a number average molecular weight of about 10 000 to  
200 000, polyphthalic acid vinyl esters

30 g) hydroxypropylmethylcellulose with a number average molecular weight of about  
6000 to 80 000.

35 h) Alkyl (meth)acrylate polymers and copolymers with a number average  
molecular weight of about 100 000 to 1 000 000, especially ethyl  
acrylate/methyl methacrylate copolymers and methacrylate/ethyl acrylate  
copolymers,

- i) polyvinyl acetate with a number average molecular weight of about 250 000 to 700 000, where appropriate stabilized with polyvinylpyrrolidone
- j) polyalkylenes, especially polyethylenes
- k) phenoxyacetic acid/formaldehyde resin
- 5 l) cellulose derivatives such as ethylcellulose, ethylmethylcellulose, methylcellulose, hydroxypropylcellulose, hydroxypropylmethylcellulose, carboxymethylcellulose, celluloseacetate phthalate
- m) animal, vegetable or synthetic fats
- 10 n) animal, vegetable or synthetic waxes or chemically modified animal, vegetable waxes such as beeswax, candelilla wax, carnauba wax, montan ester wax and rice germ oil wax, spermaceti, lanolin, jojoba wax, Sasol wax, Japan wax or Japan wax substitute.
- 15 o) Animal and vegetable proteins such as, for example, gelatin, gelatin derivatives, gelatin substitutes, casein, whey, keratin, soybean protein; zein and wheat protein
- p) mono- and disaccharides, oligosaccharides, polysaccharides, e.g. starches, modified starches and pectins, alginates, chitosan, carrageenans
- q) vegetable oils, e.g. sunflower, safflower, cottonseed, soybean, corn germ, olive, rape (seed), linseed, olive, coconut, (oil) palm kernel oil and palm oil.
- 20 r) synthetic or semisynthetic oils, e.g. medium chain-length triglycerides or mineral oils
- s) animal oils such as, for example, herring, sardine and whale oil
- t) hardened (hydrogenated or partially hydrogenated) oils/fats such as, for example, from the abovementioned in particular hydrogenated palm oil, hydrogenated cottonseed oil, hydrogenated soybean oil
- 25 u) lacquer coatings such as, for example, terpenes, especially shellac, tolu balsam, Peru balsam, sandarac and silicone resins
- v) fatty acids, both saturated and mono- and polyunsaturated C6 to C24 carboxylic acids
- 30 w) silicas
- x) benzoic acid and/or salts of benzoic acid and/or esters of benzoic acid and/or derivatives of benzoic acid and/or salts of benzoic acid derivatives and/or esters of benzoic acid derivatives.

5. A preparation as claimed in any of the preceding claims, which is in the form of a powder having an average particle size of from 1  $\mu\text{m}$  to 10 000  $\mu\text{m}$ , in particular 20  $\mu\text{m}$  to 5000  $\mu\text{m}$ .
- 5 6. A process for producing coated preparations as claimed in at least one of the preceding claims, in which
  - (i) at least one diformate is mixed where appropriate with further ingredients and/or additives
  - 10 (ii) the mixture obtained in this way is coated with a coating material, where appropriate together with other ingredients.
7. A process for producing coated preparations as claimed in at least one of the preceding claims, in which
- 15 (i) coating material is introduced into a suitable apparatus, where appropriate with the addition of further ingredients
- (ii) at least one diformate is added, where appropriate together with further ingredients and/or additives.
- 20 8. A process for producing preparations as claimed in at least one of the preceding claims, in which the diformates are applied to a carrier material before the coating.
9. A process for producing coated preparations as claimed in at least one of the preceding claims, in which
- 25 (i) at least one diformate is dispersed, where appropriate together with further ingredients and/or additives, in melts of suitable coating materials
- (ii) the dispersions obtained in this way are divided and solidified.
10. A process for producing coated preparations as claimed in at least one of the preceding claims, in which

- (i) at least one diformate is dispersed where appropriate together with further ingredients and/or additives in a coating material, in particular a lipophilic coating material,
- 5 (ii) emulsified in an aqueous solution of a protective colloid, preferably gelatin or/and gelatin derivatives or/and gelatin substitutes with the addition of one or more substances from the group of mono-, di- or polysaccharides,
- (iii) and subjected to a shaping by spraying by subsequent or simultaneous drying.

10 11. A process for producing coated preparations as claimed in at least one of the preceding claims in which at least one diformate is coated by desublimation of the coating material.

15 12. The use of a preparation as claimed in at least one of the preceding claims in premixes for animal feeds.

13. The use of a preparation as claimed in at least one of the preceding claims in feed additives and/or animal feeds, in particular for pigs, poultry and calves.

20 14. A process for producing a feed and/or feed additive comprising at least one diformate, which comprises

- (i) adding a preparation as claimed in any of claims 1 to 5 to a premix
- 25 (ii) mixing the premix obtained in this way with the other ingredients of the feed and/or feed additive.

15. An animal feed comprising a preparation as claimed in at least one of the preceding claims.

30 16. The use of a preparation as claimed in at least one of the preceding claims as performance enhancer and/or growth promoter.

17. The use of a preparation as claimed in at least one of the preceding claims as an acidifier.
18. The use of a preparation as claimed in at least one of the preceding claims as a 5 preservative.
19. The use of a preparation as claimed in at least one of the preceding claims as ensiling agent.
- 10 20. The use of a preparation as claimed in at least one of the preceding claims in fertilizers.